MARINE AVIATION

Unmanned Aircraft Systems in the Connected Battlespace

APW / LtCol Beach

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Purpose

- **Purpose:**
  - **Discuss the role UAS will play in "The Connected Battlespace"**
- **Topics:**
  - **UAS Family of Systems**
  - **USMC Vision**
  - **Group 4 UAS Characteristics**
  - **Industry Teaming**

UAS Family of Systems

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The UAS Family of Systems (FoS) provides each level of the Marine Air-Ground Task Force (MAGTF) and its subordinate units a tactical, organic, interoperable, integrated and tailored Battlespace Awareness and Force Application capability while enabling enhanced Command, Control, and Communications throughout the range of military operations.

- Fundamentals
  - **Detachable** –Expeditionary Elements “Right –Sized” for Embedded Direct Support
  - **Tailored** - Phase I and II Intelligence embedded with UAS team (Group 3-4)
  - **“Reconfigurable Multi-mission”** – Capable of rapid integration of latest Payload technology
  - **Emerging** – Utilizing Long Endurance to break into new “Dull, Dirty and Dangerous” mission capabilities

USMC UAS VISION

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- **UAS will capitalize on emerging technologies unlocking greater opportunities for combat effectiveness**
  - **Plug & Play Payloads**
  - **All UAS nodes in the Global Information Grid (Networked)**
  - **Electronic Warfare**
  - **Operating in Non-Permissive Environment-Denied Access**
  - **Long-endurance**
  - **Multi-sensor, multi-spectral, multi-mission**
  - **Increased automation (1 operator/5 missions vice 5 operators/1mission)**

USMC Group 4 UAS Characteristics

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- 14-30 hours endurance
- 350-450 nm Operational Radius
- 200+ Kts
- All Weather
- BLOS, but not necessarily tied to SATCO
- Manned aviation reliability and maintenance
- Multi-Spectral – Multi-Sensor
  - EO/IR, SIGINT, SAR, FOPEN, WAAS
- EW (ES&EA)
- Multi-channeled communications and data (network enabler – low orbiting satellite) – embedded chat functions
- Multiple High Bandwidth downlinks (channels), encrypted

Industry Teaming

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- Integrate the “Best in Industry”
  - Platforms
  - Payloads
  - Ground Control Systems
  - Network Architecture
- Drive standards and interoperability
  - Help define USIPs
  - Demand PnP Size, Weight, and Power (SWaP) interfaces
  - Enable future technologies

QUESTIONS

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